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ABSTRACT

A test was constructed which would evoke racial preferences, and 72 black and 55 white 10th-graders were individually tested by two black and two white test givers. There was a distinct black as opposed to a distinct white response to the test items; however, the races of the test givers did not influence the way the subjects responded to any of the test items. (Author)

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THE EFFECTS OF RACE ON TEST TAKING

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Observable ethnic differences in test scores have been of increasing interest in recent years. Studies have indicated significant differences in IQ, achievement, and other personality factors between blacks, whites, Orientals, and Jews, for instance (Deutsch et al., 1968; Jensen, 1969; Rohwer, 1971; Webster, 1972; Zirkel, 1971). Part of these differences are suspected of being caused by racial biases between test givers and test takers, particularly when the black and white races are concerned.

A considerable number of studies have been conducted on interactions between test givers and test takers when race is not a factor (Exner, 1966; Kirkland, 1971; Masling, 1959; Sachs, 1952). These studies report that intelligence and other personality scores may be adversely affected if a warm, friendly rapport does not exist between test givers and test takers.

A smaller number of studies have limited themselves specifically to racial biases in testing. Studies such as those conducted by Katz et al. (1968) and Turner (1971) have been carried out which include a testing situation as part of a larger experiment. These studies generally show that the race of the test giver interacts with the subjects' test scores, however, other influences in these designs may well be the cause of the score differences rather than the races of the test givers themselves.

The studies which involve racial interactions generally have not varied the races of both the test givers and the test takers within the same experiment. For example, the Katz et al. study used black and white test givers, who administered treatments to black children only. The Turner study also used black and white test givers, but the tests were administered to white children only. This particular type of experimental design has persisted since the 1940's (Cantril, 1947, pp. 114-116).

The purpose of the present study was to eliminate as many extraneous factors from the experimental design as possible, so that race itself might be more identifiable as the cause of differences in test performance. In

addition, the race of both test givers and test takers was varied in order to obtain a more comprehensive set of data.

Method

Instrument. -- In order to factor out extraneous influences such as academic ability and achievement, and to facilitate responses relative to race, a test was designed which did not measure academic ability as in the studies previously cited. With the assistance of a panel of three black and three white psychology students, a ten item multiple choice test was constructed which would evoke racial (cultural) preferences on a number of contemporary topics. (Appendix). For each item two "black" and two "white" responses were constructed. A pilot study indicated that the black and white distractors did, in fact, evoke choices from black and white respondents differently.

In order to lead the subjects away from the real purpose of the test, the instrument was referred to in their presence as a "high school attitude test." In addition, items 3 and 9 were constructed to serve as distractors and had no other purpose in the experiment.

Sample. -- The experiment was carried out on subjects coming from a population of 40,000 persons in a midwestern industrial community. Approximately 50 percent of the persons in the community were black. Of the remaining persons, about 40 percent were white, with the remaining 10 percent mostly of Spanish American origin.

The sample was selected from the tenth grade of a high school contai ng 68 percent black and 32 percent white students. There were 650 subjects in the total tenth grade population, with all subjects being distributed across 24 English classrooms. Eight classrooms were randomly selected from the 24 for participation in the experiment. The counseling center of the school identified the general academic characteristics of the students in the selected classrooms as noted in Table 1.

TABLE 1

Academic Classification of the Sample

Academic Achievement	Number of Classrooms	Number of Students in Classrooms
Low	1	9
Low to average	3	41
Average to high	3	57
High	1	20
Total	8	127

The sample contained 127 subjects, of whom 72 were black persons and 55 were white.

Treatment. -- The test givers were college psychology students who underwent a training program in order to make the test administrations uniform between test givers. Racially, the test givers were composed of one black male, one black female, one white male and one white female.

The subjects were taken from the participating classrooms four at a time, and each was randomly assigned to one of the four test givers. The test givers were located in separate unoccupied classrooms in the building. In order to avoid an interaction between the subjects who had been interviewed and subjects who had not yet participated, as each subject completed his interview he was taken to a "holding location." He remained at this location until all of the subjects in the classroom had been interviewed, whereupon all of the subjects were returned to the classroom at the same time.

Each subject was put into close personal contact with the test giver in order to facilitate racial interactions between the subjects and the test givers. Each subject was personally introduced to his particular test giver, and then the two were seated face to face approximately three feet apart. A short time was taken by the test giver to establish personal contact with the subject, and then the test giver read each question and the possible choices to the subject. The subject responded by circling his answers in a copy of the test booklet given to him for that purpose. The choices the subject made were in full view of the test giver, and the subject was aware that the test giver was watching to see how he responded. The testing sessions lasted for approximately 10 minutes per subject.

Results

General comparison of black vs white respondents. -- The Chi Square test with Yates' correction factor was applied to the scores generated by the black group as opposed to the scores generated by the white group. There was a distinct black as opposed to a distinct white response to the four given choices, as shown in Table 2. The black subjects responded significantly different than the white subjects on all of the items except for number 5.

Racial effects of testing. -- Again using the Chi Square test with Yates' correction factor, the following was determined:

1) The black subjects did not respond to the white test givers any differently than they responded to the black test givers (Table 3).

2) The white subjects did not respond to the black test givers any differently than they responded to the white test givers (Table 4).

TABLE 2

Responses of the Test Takers, When the Race of the Test Givers Is Not Taken Into Account

Item	Race of Test Taker	Response*				df	Chi Square	p <
		A	B	C	D			
1	Black	5	35	11	21	3	11.72	.01
	White	3	31	18	3			
2	Black	71	0	0	1	3	106.95	.001
	White	2	8	7	38			
4	Black	16	14	2	39	3	52.78	.001
	White	36	0	13	6			
5	Black	1	57	6	6	3	57.82	.001
	White	2	5	24	22			
6	Black	33	12	7	20	3	7.71	ns
	White	23	12	13	7			
7	Black	3	39	25	5	3	10.80	.025
	White	2	18	19	16			
8	Black	4	57	4	7	3	21.97	.001
	White	19	21	6	9			
10	Black	4	37	5	25	3	64.62	.001
	White	19	4	28	4			

* See Appendix A for the four possible responses to each item

For black test takers, n = 72
For white test takers, n = 55

TABLE 3

Responses of the Black Test Takers, When the Race of the Test Givers Was Varied

Item	Race of Test Giver	Response* A	B	C	D	df	Chi Square	p <
1	Black	1	17	5	10	3	.61	ns
	White	4	18	6	11			
2	Black	33	0	0	0	1	.01	ns
	White	38	0	0	1			
4	Black	7	5	0	21	3	1.24	ns
	White	9	9	2	18			
5	Black	0	28	3	2	3	.18	ns
	White	1	29	3	4			
6	Black	18	4	3	8	3	1.16	ns
	White	15	8	4	12			
7	Black	1	17	11	4	3	1.21	ns
	White	2	22	14	1			
8	Black	2	27	2	2	3	.52	ns
	White	2	30	2	5			
10	Black	2	15	2	14	3	1.04	ns
	White	2	22	3	11			

* See Appendix A for the four possible responses to each item
n = 72

TABLE 4

Responses of the White Test Takers, When the Race of the Test Givers Was Varied

Item	Race of Test Giver	Responses* A	B	C	D	df	Chi Square	p <
1	Black	1	19	9	2	3	.33	ns
	White	2	12	9	1			
2	Black	2	4	3	22	3	.40	ns
	White	0	4	4	16			
4	Black	23	0	5	3	2	1.60	ns
	White	13	0	8	3			
5	Black	2	4	16	8	3	4.15	ns
	White	0	1	8	14			
6	Black	13	8	7	3	3	.35	ns
	White	10		6	4			
7	Black	2	8	9	12	3	2.77	ns
	White	0	10	10	4			
8	Black	11	14	1	5	3	3.03	ns
	White	8	7	5	4			
10	Black	8	3	17	3	3	1.24	ns
	White	11	1	11	1			

* See Appendix A for the four possible responses to each item.
n = 55

Discussion

The purpose of the study was to test the hypothesis that the race of a test giver is a sufficient condition to cause test takers to score on tests in a manner which deviates from what would be their otherwise normal response. The design of the study was structured in such a way as to give this hypothesis ample opportunity to be supported.

The instrument which served as the vehicle for testing the hypothesis did not require the respondents to possess any particular academic skills. This rules out the suggestions within the experiment that some subjects' scores may be different due to an educational disadvantage. The instrument, in addition, was constructed in such a way as to evoke racially-oriented preferences. Obviously, these are culturally-oriented preferences, however, it was found in the pilot study that black persons tended to respond to the same items differently than white persons, therefore the responses are referred to for the purposes of the study as being of "racial origin." This characteristic of the instrument was devised to put the test taker into a position in which he could respond either according to his race, or, alternatively in the case in which the test giver was of the opposite race, he could compromise and respond relative to the race of the test giver.

The test givers and test takers were put into a very close physical relationship, with an abundance of looking at each other, face-to-face dialog, and so on. In addition, the respondents' answers were in full view of the test givers, and the respondents were conscious of this. Finally, the races of both the test givers and test takers were varied to see if racial effects in test giving were more pronounced within one race than in the other.

If the mere fact of race can cause differences in test scores, it was likely that this design would detect it, since numerous measures were taken to make race the central focus of the study and to control against nonracial factors.

The results show that there was a distinct black as opposed to white response to seven of the eight test questions. This was expected, since the instrument was purposely constructed so as to evoke racial preferences. This supported the intent of the instrument to structure the testing situation so that the test taker would be on ground of his own choosing.

According to the data in Tables 3 and 4, the test takers continued to "think black" or to "think white" regardless of the race of the test givers. We are led to conclude from this that the simple fact of race is not sufficient as an explanation of the cause of test score differences between white and black test takers.

A number of observations are relevant at this point, regarding the circumstances of the population studied. The subjects came from a high school in a northern industrial community, with a school population of 68 percent black and 30 percent white students. Black pride has been

a part of this school's curriculum, and the effect of this may have been demonstrated in the results of the study. The blacks "thought black" regardless of circumstances, and the whites "thought white" similarly. Had the racial proportions of the student body been reversed, and had there been no "black pride" curriculum, the results of the study may have been different.

Although the community has had its share of racial disturbances, the members of the sample, both black and white, appeared to have a genuine regard for each other. Item 5, which may have identified a trace of racism if it were answered in a certain way, caused considerable discussion between the subjects and the test givers. Four subjects, two black and two white, refused to answer the question in any way, and others commented that this was a difficult choice, since all of the choices for president were "equally qualified." Although the effects caused by the test giver's race on this item were not statistically significant, the Chi Square score of 4.15 (7.82 needed for significance at the .05 level) indicates the possible hint that white test takers may be more affected by black test givers than black test takers are by white test givers. Since the deviation between the races of test takers was not statistically significant here, one can only speculate as to this suggestion.

To the extent that the population used in this study is representative of the greater population, we are led to conclude that the mere race of the person giving a test does not significantly affect the score of the person taking the test.

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APPENDIX A

GRADE 9 10 11 12

SEX MALE FEMALE

SCHOOL _____

DATE _____

HIGH SCHOOL ATTITUDE TEST

1. If someone gave you a free weekend trip to visit anywhere in the world, which one of these places would you rather visit?

   A. Atlanta, Georgia
   B. Honolulu, Hawaii
   C. London, England
   D. Cape Town, South Africa

2. If there were four concerts appearing on the same night, which type would you enjoy attending most?

   A. Soul
   B. Classical
   C. Country-western
   D. Hard-rock

3. At which age do you feel you'll be ready for marriage?

   A. 16-18
   B. 18-21
   C. 21-25
   D. 25 years or older

4. Who do you consider the greater hero?

   A. Abraham Lincoln
   B. Crispus Attucks
   C. Ulysses S. Grant
   D. Booker T. Washington

5. At the age of 18 you will be able to vote. If four individuals with equal qualifications were candidates for the presidency which do you feel would best represent the voice of the American people?

   A. A Spanish American
   B. A Black American
   C. An American Indian
   D. A White American

6. If you were a member of "The President's Council on Major Problems of the Nation" which would you consider to be the most important problem to be discussed?

   A. War
   B. Poverty
   C. Crime
   D. Race

7. If you were given the amount of money used to send an Apollo spaceship to the moon, how would you spent it?

   A. To further the space-program
   B. Education of the handicapped
   C. Wipe out poverty
   D. On ecological research

8. You have just won the choice of seeing one of the four sports playing today. Which one will you attend?

   A. Green Bay Packers
   B. Harlem Globetrotters
   C. Pittsburgh Pirates
   D. Boxing tournament

9. Which language would you like to speak fluently?

   A. Spanish
   B. French
   C. German
   D. Russian

10. If you got into trouble and had to discuss it with a school counselor, who do you think would understand you best?

   A. White female
   B. Black female
   C. White male
   D. Black male